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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,776	03/21/2006	Sethumadavan Sanjay-Gopal	PHUS030363US	3412

7590 06/08/2011  
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EXAMINER
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ROY, BAISAKHI

ART UNIT	PAPER NUMBER
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3777

MAIL DATE	DELIVERY MODE
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06/08/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/572,776	SANJAY-GOPAL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	BAISAKHI ROY	3777	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 15 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15, and 22-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, with respect to the restriction by original presentation have been fully considered and are persuasive. The restriction has been withdrawn and therefore previous final action has been withdrawn.
2. Applicant's arguments with respect to Ma have been fully considered but they are not persuasive. Applicant argues that Ma does not teach user selection and addressing selected diagnostic images to a selected medical professional and that all images are sent to the central database from which others might receive them at a later time. The imaging communication system as taught by Ma clearly includes wireless communication network 132 between a workstation and individual servers 18', 20', 22', 23' and the user or operator selects the set of images to be transferred and to the particular medical facility or professional for review. This transmission of information can be done in real time. Ma teaches generating images by the medical imaging apparatus 140 and reconstructed by the data processing server computer 23 and stored in the database 44. Real-time images are stored in the memory from which they are selectively conveyed by the user using an input device to the a display monitor or workstation computer or floor monitor for viewing by other operators or medical professionals or attending physicians [0082]. Therefore, the images may be stored in the database or may be sent to remote facilities or other medical professionals via the communications network 132. Therefore clearly the operator selects a set of images to be transferred to a remote location and not all the images are sent to the remote

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location. Applicant argues that the reference does not address the real-time requirement of sending the set of images to a particular medical professional at a remote facility. Clearly, with respect to the claims, there would be some initial storage of information or initial images as soon as the user scans the patient to create a set of initial images, before the set of initial images are sent to the remote location for review. Therefore, while Ma teaches sending the images to the database for initially storing the information, the images are then selectively conveyed to the remote location. Applicant argues that Ma does not teach a means for selecting and addressing one or more medical professionals. Ma teaches the use of input device 114 on user interface 120 for selection of the information specific to the patient including name of medical professional [0118]. It is well known that the operator may selectively retrieve and view images from one or more archived images and in addition to viewing selected images, the medical professional may also view other information such as imaging apparatus identification, imaging parameters, presiding physician identification, and patient identification [0004]. There is user input of selecting and addressing selected diagnostic images to a selected medical professional. Ma also teaches creating a professional address which includes image information, patient information, and information on the medical professional [0118]. Therefore, the operator sends the specific set of images to the specific medical professional and then the medical professional receives the wireless communication and the address reader connected with the receiver examines each transmission for preselected address. There is a display device provided on the receiving end to display the images and information tied to the image and patient for

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effective identification of the images and the patient by the medical professional. The images are identified by tags where a tagged data packet consists of header containing information about the images, the patient, and the medical professional. The tagged data is sent to a tag router which sends the data to its destination. Any unit which receives tag data has a logical address which it registers with the local tag router and therefore the tag router allows tagged data transfer with the different units such as the receiver and the transmitter [0106, 0107]. The selected data is sent to the selected medical professional through the tag router through in and out channels [0108, 0109]. The receiver unit receives the information and reads the address and the associated tag data and processes the information accordingly. The previous rejection with respect to Ma is maintained and repeated below.

Applicant argues that Sumanaweera does not address providing real time communication among medical professionals between a medical professional and a scanner or among or between radiologists and/or operator of a scanner workstation. The reference clearly teaches acquiring image data at the same or different times at different remote locations and using a local network, the image data is submitted to a remote server through a network and information sent is selected by the user or sent automatically, where the remote server processes the images with input from the particular medical professional and then the results of the processing by the medical professional at the remote location are sent back to the workstation or other facilities and the entire process happens in real time during an imaging session [0013]. The information is encrypted or including a specific address for the particular set of images

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and corresponding patient. The reference clearly teaches of portable receiving units such as hand-held or movable, ultrasound system, laptop computers, PDAs and cellular phones that are connectable with wireless network 14 where the remote portable units receive the image data from the workstation and evaluate the image data [0015-0017]. A local user scan the patient, sends the resulting image data to the remote server and server sends back processed results to the local user to rescan by changing imaging parameters and this entire process is done in real-time during an imaging session [0040]. Therefore, Sumanaweera clearly teaches real time communication between a local user and remote units or professionals at remote units. Therefore the system includes diagnostic scanners disposed near the imaging workstation where the workstation communicates the imaging protocols to the scanner to control the scanner during the imaging process [0015, 0040]. With respect to amended claim 6 and the verbal discussion of the images between the medical professionals, this limitation does not limit the system. Regardless, Sumanaweera clearly addresses real time communication between medical professionals discussing the images and making corrections or changes as needed. The rejection is therefore maintained with respect to Sumanaweera reference.

Applicant argues that Gelvin does not address real time communication between medical professionals to perform a real time review of the images. Gelvin clearly teaches transmitting data through a wireless network by a user to a client computer (fig. 10). The process is based on real time wireless transmission of data between the remote units (fig. 20). Therefore the wireless transmission of medical data takes place

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between different servers at remote locations to enable collection of medical information from diverse sources and enabling more complete records (col. 68 lines 25-56). The previous rejection is therefore maintained with respect to Gelvin.

3. Ma therefore clearly teaches a real time wireless communication system between a workstation and remote servers where the operator may select the set of images to be sent to a particular medical professional to be evaluated. Ma does not teach of portable units at the remote locations. Sumanaweera clearly teaches of a real time wireless communication system where images are sent to portable units for review by the medical professional and may be sent back for further imaging based on changed imaging parameters. It would have therefore been obvious to one of ordinary skill in the art to combine Ma and Sumanaweera such that the system may be connected to portable remote units to enable effective real time consultation with the medical professionals located at remote medical care centers. Gelvin is further added to address the electronic camera. Gelvin discloses a system for compact internetworked wireless integrated network sensors for providing a network to transmit and receive information to and from remote locations which can be used by medical professionals to sense, monitor and control with the wireless communication devices (col. 9 lines 31-52). The system includes sensors with seismic and imaging capability and includes a camera to take and transmit images (col. 12 lines 62-col. 13 line 10). The electromechanical controller includes the capability to adjust the field of view, focus, and direction of the camera (col. 13 lines 22-39). It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Gelvin et al. to modify the

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teaching by Ma et al. such that effectively view the patient while the patient is being imaged by the scanner.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 10, 15, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ma et al. (20050063575). Ma et al. disclose an imaging communication system for communicating between an imaging workstation from which imaging protocols are conducted and at which diagnostic images are displayed [0045]. The system includes a workstation 118 which includes an input device 114 by which a user selects and addresses one or more medical professionals and selects diagnostic image representations to be sent to the one or more medical professionals [0047]. The input unit includes The system also includes a unit which formats the selected medical professional address and the selected diagnostic image representations into a wireless transmission format and wirelessly transmits the selected image representation with the selected medical professional address [0057, 0058]. The system further includes a plurality of remote units or server computers 18, 20, and 22 [0074] or servers 80, 82, 84,



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86, and 88 [0105] which includes a receiver to receive wireless transmission through network 132 from workstations and from other remote units or servers [0077], an address reader connected which examines each received wireless transmission for a corresponding preselected address [0103], a video processor connected with the receiver which converts a diagnostic image portion of the received wireless transmission into an appropriate format for human-readable display in response to the address reader finding the corresponding preselected address in the received wireless communication on a display device 116 or display monitor 142 [0044, 0047, 0059, 0070, 0071, 0118]. The system is used in clinical applications and is connected with a hospital based network [0071]. Therefore the system includes a diagnostic scanner and a reconstruction processor [0087, 0098]. The system then includes a patient records database and a wireless transmitter connected with the database which wirelessly transmits patient records to the remote unit [0058, 0082].

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-7, and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. in view of Sumanaweera et al. (20050049495). Ma et al.

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teach of multiple remote units and teach of wireless transmission with input unit including a control panel, keyboard, and a pointing device [0047] and each remote unit has a memory from which an address of one of the workstations and another remote unit is selectable [0050, 0063-0066] but do not explicitly teach of portable units. In the same field of endeavor Summanaweera et al. teach an imaging system where users of the system at remote locations are able to receive and process information provided by the central imaging system where the units at the remote locations are portable units such as a laptop computer, PDA that are connected to the network to receive, transmit, and process information [0015, 0016]. Sumanaweera et al. also teach of converting the processed data into voice to be played back to the receiver and therefore would necessarily include a microphone [0037]. Therefore the system includes diagnostic scanners disposed near the imaging workstation where the workstation communicates the imaging protocols to the scanner to control the scanner during the imaging process [0015, 0040]. While Sumanaweera explicitly teaches of communication between medical professionals, such claim limitations related to sending of messages to operator and authorizing release of subject or perform further scans do not further limit the system claim. In combination with teaching by Ma et al. the imaging communication system therefore include remote portable units which can receive wireless communication, reads the address of the received wireless communication, and converts the input information of the received wireless communication into a human-readable and hearable format [0039]. It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Sumanaweera et al. to modify the

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teaching by Ma et al. to ensure effective wireless transmission of information to portable remote units.

8. Claims 8, 9, 22-25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. in view of Sumanaweera et al. and further in view of Gelvin et al. (7797367). Ma et al. disclose an imaging communication system for communicating between an imaging workstation from which imaging protocols are conducted and at which diagnostic images are displayed [0045]. The system includes a workstation 118 which includes an input device 114 by which a user selects and addresses one or more medical professionals and selects diagnostic image representations to be sent to the one or more medical professionals [0047]. The system also includes a unit which formats the selected medical professional address and the selected diagnostic image representations into a wireless transmission format and wirelessly transmits the selected image representation with the selected medical professional address [0057, 0058]. The system includes a diagnostic scanner such as MR system 138 [0058, 0059]. The system further includes a plurality of remote units or server computers 18, 20, and 22 [0074] or servers 80, 82, 84, 86, and 88 [0105] which includes a receiver to receive wireless transmission through network 132 from workstations and from other remote units or servers [0077], an address reader connected which examines each received wireless transmission for a corresponding preselected address [0103], a video processor connected with the receiver which converts a diagnostic image portion of the received wireless transmission into an appropriate format for human-readable display in response to the address reader

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finding the corresponding preselected address in the received wireless communication on a display device 116 or display monitor 142 [0044, 0047, 0059, 0070, 0071, 0118].

The system is used in clinical applications and is connected with a hospital based network [0071]. Ma et al. also teach administering of contrast agent into the patient and transmits and receives data in real time between the workstation and the remote units.

9. Ma et al. teach of multiple remote units and teach of wireless transmission with input unit including a control panel, keyboard, and a pointing device [0047] and each remote unit has a memory from which an address of one of the workstations and another remote unit is selectable [0050, 0063-0066] but do not explicitly teach of portable units. In the same field of endeavor Summanaweera et al. teach an imaging system where users of the system at remote locations are able to receive and process information provided by the central imaging system where the units at the remote locations are portable units such as a laptop computer, PDA that are connected to the network to receive, transmit, and process information [0015, 0016]. Sumanaweera et al. also teach of converting the processed data into voice to be played back to the receiver and therefore would necessarily include a microphone [0037]. A local user scan the patient, sends the resulting image data to the remote server and server sends back processed results to the local user to rescan by changing imaging parameters and this entire process is done in real-time during an imaging session [0040]. Therefore, Sumanaweera clearly teaches real time communication between a local user and remote units or professionals at remote units. Therefore the system includes diagnostic scanners disposed near the imaging workstation where the workstation communicates

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the imaging protocols to the scanner to control the scanner during the imaging process [0015, 0040]. Clearly, there is communication between medical professionals to rescan the patient, if necessary or acceptance of the images. In combination with teaching by Ma et al. the imaging communication system therefore include remote portable units which can receive wireless communication, reads the address of the received wireless communication, and converts the input information of the received wireless communication into a human-readable and hearable format [0039]. Therefore, after analysis of the images by the medical professional, the wireless transmitters and receivers may transmit voice and/or text instructions to operator to conduct further scan or accept images and therefore release patient. It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Sumanaweera et al. to modify the teaching by Ma et al. to ensure effective wireless transmission of information to portable remote units.

10. Ma et al. and Sumanaweera et al. teach of obtaining images but do not teach of the use of an electronic camera. In the same field of endeavor Gelvin et al. disclose a system for compact internetworked wireless integrated network sensors for providing a network to transmit and receive information to and from remote locations which can be used by medical professionals to sense, monitor and control with the wireless communication devices (col. 9 lines 31-52). The system includes sensors with seismic and imaging capability and includes a camera to take and transmit images (col. 12 lines 62-col. 13 line 10). The electromechanical controller includes the capability to adjust the field of view, focus, and direction of the camera (col. 13 lines 22-39). It would have

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therefore been obvious to one of ordinary skill in the art to use the teaching by Gelvin et al. to modify the teaching by Ma et al. such that effectively view the patient while the patient is being imaged by the scanner.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAISAKHI ROY whose telephone number is (571)272-7139. The examiner can normally be reached on M-F (9:00 a.m. - 5:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Chen can be reached on 571-272-3672. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BR  
/B. R./  
Examiner, Art Unit 3777

/Tse Chen/  
Supervisory Patent Examiner, Art Unit 3777